

WHAT IS CLAIMED IS:

- 1           1.     A method for transmitting using a wireless transmitter, comprising:  
2                     generating a first block of one or more first frames;  
3                     transmitting the first block of one or more first frames based on a first  
4     targeted frame error rate;  
5                     determining whether one or more first error conditions occurred; and  
6                     if at least one first error condition occurred, transmitting a second block of  
7     second frames based on a second targeted frame error rate, wherein the second block  
8     contains at least one first frame associated with the one or more first error conditions, and  
9     wherein the second targeted frame error rate is less than the in response targeted frame  
10    error rate.
- 1           2.     The method of claim 1, further comprising:  
2                     if no first error condition occurred, transmitting a next block of frames  
3     based on the first targeted frame error rate.
- 1           3.     The method of claim 1, wherein generating the one or more first frames  
2     includes:  
3                     receiving one or more first segments from a network;  
4                     extracting data from the one or more first segments; and  
5                     forming the one or more first frames using the extracted data.
- 1           4.     The method of claim 3, further comprising generating at least one  
2     acknowledgment signal corresponding to at least one of the one or more first segments.
- 1           5.     The method of claim 4, wherein the segments are transmission control  
2     protocol (TCP) segments.
- 1           6.     The method of claim 3, wherein the frames are radio link control (RLC)  
2     frames.
- 1           7.     The method of claim 3, wherein error conditions are based on a number of  
2     erroneous frames.
- 1           8.     The method of claim 1, further comprising:  
2                     determining whether one or more second error conditions occurred;  
3                     if at least one second error condition occurred, transmitting a third block  
4     of third frames based on a third targeted frame error rate, wherein the third block contains

1999-0802-001

at least one second frame associated with the one or more second error conditions, and wherein the third targeted frame error rate is less than the second targeted frame error rate; and

if no second error condition occurred, transmitting a third block of third frames based on a higher targeted frame error rate.

9. The method of claim 2, wherein the first block of one or more first frames are transmitted at a first power level associated with the first targeted frame error rate.

10. The method of claim 9, wherein frames transmitted at the first power level are successfully received at a rate substantially close to the first targeted frame error rate.

11. A method for controlling error rates, comprising:  
transmitting the first block of one or more first frames at a first power level to target a first frame error rate; and  
determining whether one or more first error conditions occurred; and  
if at least one first error condition occurred, transmitting a second block of second frames at a second power level to target a second frame error rate, wherein the second block contains at least one first frame associated with the one or more first error conditions.

12. The method of claim 11, further comprising:  
determining whether one or more second error conditions occurred;  
if at least one second error condition occurred, transmitting a third block of third frames at a third power level to target a second frame error rate, wherein the third block contains at least one second frame associated with the one or more second error conditions; and

if no second error condition occurred, transmitting a third block of third frames the first power level.

13. An apparatus that transmits frames, comprising:  
a wireless transmitter that transmits frames, the transmitter's power being controllable to substantially transmit frames according to a set of targeted frame error rates; and

a monitor that determines a number of error conditions of previous transmissions of frames;

7                    wherein the monitor sets the transmitter's power to a first power level  
8                    based on a first targeted frame error rate of the set of targeted frame error rates, if at least  
9                    one error condition occurs in an immediately preceding transmission cycle, and wherein  
10                   the monitor sets the transmitter's power at a second level based on a second targeted  
11                   frame error rate of the set of targeted frame error rates if there are no error conditions in  
12                   the immediately preceding transmission cycle.

1                   14.     The apparatus of claim 13, further comprising a reformatting circuit that  
2                   generates the frames based on received segments.

1                   15.     The apparatus of claim 14, further comprising an acknowledgment circuit  
2                   that generates acknowledgment signals corresponding to the received segments.

1                   16.     The apparatus of claim 15, wherein the received segments are transmission  
2                   control protocol (TCP) segments.

3                   17.     The apparatus of claim 13, wherein the error condition is based on a  
4                   number of erroneous frames.

1                   18.     The apparatus of claim 13, wherein the first targeted frame error rate is  
2                   less than the second targeted frame error rate.

0999046-061901  
FOI 90-946660